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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,710	11/30/2000	Takashi Hasegawa	P/1071-1233	1866

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EXAMINER

BETTENDORF, JUSTIN P

ART UNIT PAPER NUMBER

2817

DATE MAILED: 01/16/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/726,710

Applicant(s)

HASEGAWA, TAKASHI

Examiner

Justin P. Bettendorf

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 7-12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. United States Patent No. 3,836,874 in view of Konishi et al. EP 0 903 802 A2.

The Maeda et al. reference discloses in figure 5 a non-reciprocal circuit device with overlapping, intersecting central conductors 21-26 on a magnetic member 31 with a DC magnetic field applied perpendicularly thereto (see claim 1 of Maeda et al.). Figure 6 shows a non-reciprocal circuit that includes a bandpass filter of a series inductor 62 and capacitor 61 (with respect to claim 2), and figure 9 shows a low pass filter that includes capacitors 65, 67 on either side of inductor 66 (with respect to claim 3). The reference further that the inductors may be formed by a coiled wire (i.e. a solenoid) but does not disclose the coiled wire's orientation.

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The Konishi et al. reference discloses a non-reciprocal circuit element with solenoid shaped inductors 181-183 in figure 1 that are oriented such that the magnetic field passing through the magnetic members 10, 11 is perpendicular to the DC magnetic field (page 3, lines 40-45). The reference also discloses that non-reciprocal circuits (i.e. circulators) are conventionally used in communication devices (page 2, lines 5-7).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have oriented the solenoid inductors in the non-reciprocal circuit of Maeda et al. as taught by Konishi et al. because, as Maeda et al. is silent on the orientation, any art-recognized equivalent orientation would have been usable therewith such as the orientation taught by Konishi et al. Additionally, the inclusion of the non-reciprocal circuit (i.e. circulator) in a communication device would have been obvious because such a modification would have been based on the convention use of a non-reciprocal circuit (i.e. circulator) as taught by Konishi et al.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Makino et al. United States Patent No. 5,923,224 discloses a non-reciprocal circuit with low pass filters at the input.

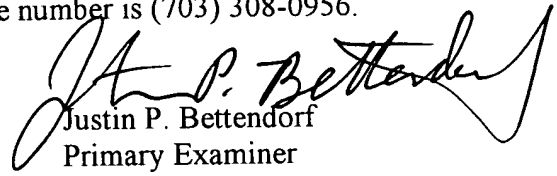
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P. Bettendorf whose telephone number is (703) 308-2780. The examiner can normally be reached on 6:00-3:30 (M-F, 1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert C. Pascal can be reached on (703) 308-4909. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Justin P. Bettendorf
Primary Examiner
Art Unit 2817

jpb
January 11, 2002